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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,101	05/08/2001	Terry Jacobson	5-12	2333

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Docket Administrator (Room 3C-512)
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EXAMINER	
PEREZ, JULIO R	

ART UNIT	PAPER NUMBER
2681	6

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/851,101	JACOBSON ET AL.	
	Examiner	Art Unit	
	Julio R Perez	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 1, 3 and 5 are objected to because of the following informalities:

Regarding claims 1, 3 and 5, the word "system" is missing between the words "first" and "and," in lines 4, 3, and 4 respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al. (5537474).

Regarding claim 1, Brown et al. teach a method of providing authentication in a wireless communication system comprising the steps of: transmitting a first message to a first system, the first message comprising a mobile identifier for a subscriber of the first system (col. 7, lines 46-50, the mobile subscriber identifier (MSI) is transmitted to the serving base station) and a second system indicator indicating that the subscriber is attempting to gain access to a second system that uses an authentication process different than an authentication process used by the first system (col. 5, lines 39-41, the GSM authentication protocol is different from that of a ty7pical United States Digital

Cellular (USDC); col. 7, lines 50-61, a subscriber unit is roaming into GSM system, which sends the subscriber identifier (MSI) to the serving base station); receiving a second message from the first system having shared secret data associated with the subscriber (col. 7, lines 61-64, by using the same algorithm, the home system would then send the shared secret data (SSD) of 128 bits to the visited system); generating an expected response to a unique challenge using the shared secret data and an encryption algorithm (col. 4, lines 32-37, col. 7, lines 67 and col. 8, lines 1-3, an 18 bit authentication response (AUTH_R) is generated by the combination of a 32-bit random challenge (RAND) and the SSD together in a common algorithm; and transmitting the expected response to the second system (col. 4, lines 38-42 and col. 8, lines 2-3, the authentication response is communicated through the fixed network communication unit (130) to home system HLR, together with the RAND).

Regarding claim 2, Brown et al. teach the method, wherein the second system indicator includes at least one of the following: an electronic serial number set to a default or null value (col. 4, lines 14-18, the USDA phones that do not possess a smart card or an SIU, contain the subscriber identifier (MIS, which may, indeed, include the mobile identification number (MIN) and electronic serial number (ESN)); a system capability parameter indicating that the subscriber is roaming in a GSM based wireless communication system; or a system access type parameter indicating that the subscriber is attempting to gain access in a GSM based wireless communication system (col. 7, lines 64-67 and col. 8, lines 1-3, the visited system creates the necessary RAND-SRES-Kc triplets from the Ki-temp and communicate the first RAND

to unit (210), the former are parameters pertaining to GSM, which are generated when a mobile from a different system enters the GSM system).

Regarding claim 3, Brown et al. teach a logical network entity comprising: means for transmitting a first message to a first system (col. 7, lines 46-50), the first message comprising a mobile identifier for a subscriber of the first system and a second system indicator indicating that the subscriber is attempting to gain access to a second system that uses an authentication process different than an authentication process used by the first system (col. 5, lines 56-61, SRES is transmitted from the subscriber unit (210) and forwarded to the HLR/AuC (243), located in the GSM system); means for receiving a second message from the first system having shared secret data associated with the subscriber (col. 4, lines 42-49 and col. 7, lines 61-64); means for generating an expected response to a unique challenge using the shared secret data and an encryption algorithm (col. 5, lines 52-56, the HLR/AuC calculate a 32 bit rsponse as a combination of the RAND and secret key Ki in a mixing algorithm); and means for transmitting the expected response to the second system (col. 5, lines 58-61).

Regarding claim 4, Brown et al. teach the logical network entity, wherein the second system indicator includes at least one of the following: an electronic serial number set to a default or null value; a system capability parameter indicating that the subscriber is roaming in a GSM based wireless communication system; or a system access type parameter indicating that the subscriber is attempting to gain access in a GSM based wireless communication system (col. 7, 64-67 and col. 8, lines 1-3).

Regarding claim 5, Brown et al. teach a method of providing authentication in a wireless communication system comprising the steps of: receiving a first message at a first system, the first message comprising a mobile identifier for a subscriber of the first system (col. 7, lines 48-50, when roaming into a GSM system, it would start by sending the subscriber identifier (MSI) and a second system indicator indicating that the subscriber is attempting to gain access to a second system that uses an authentication process different than an authentication process used by the first system; determining shared secret data associated with the subscriber using the mobile identifier and the second system indicator; and transmitting a second message from the first system having the shared secret data (col. 5, lines 56-61, SRES is calculated by using the received RAND and the stored Ki, which is an indication that a non GSM mobile is roaming into the GSM system).

Regarding claim 6, Brown et al. teach the method, wherein the second system indicator includes at least one of the following: an electronic serial number set to a default or null value; a system capability parameter indicating that the subscriber is roaming in a GSM based wireless communication system; or a system access type parameter indicating that the subscriber is attempting to gain access in a GSM based wireless communication system (col. 7, 64-67 and col. 8, lines 1-3, the subscriber is roaming into a GSM system).

Regarding claim 7, Brown et al. teach an authentication system comprising of: means for receiving a first message at the authentication system, the first message comprising a mobile identifier for a subscriber of a first system to which the

authentication system is a part of and a second system indicator indicating that the subscriber is attempting to gain access to a second system that uses an authentication process different than an authentication process used by the first system means for determining shared secret data associated with the subscriber using the mobile identifier and the second system indicator (col. 5, lines 56-61, col. 7, lines 48-50); and means for transmitting a second message from the first system having the shared secret data (col. 4, lines 27-31 and 42-49);

Regarding claim 8, Brown et al. teach the authentication center, wherein the second system indicator includes at least one of the following: an electronic serial number set to a default or null value; a system capability parameter indicating that the subscriber is roaming in a GSM based wireless communication system; or a system access type parameter indicating that the subscriber is attempting to gain access in a GSM based wireless communication system (col. 7, lines 64-67 and col. 8, lines 1-3, the GSM system includes an HLR and an AuC (Authentication Center)).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R Perez whose telephone number is (703) 305-8637. The examiner can normally be reached on Monday - Friday, 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SINH TRAN
PRIMARY EXAMINER

JP
1/30/04